

# Chemistry 2541, Fall 2015

## Quiz 4

Key

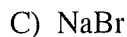
(30 points)

### Important notes:

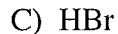
- Please use the provided Scantron form for your answers; you can keep the sheet with the questions and can use it as scratch paper
- Do not forget to write your name on the Scantron form
- You will not receive credit for unmarked answers or for more than one mark on answer line
- Your scores will be posted on eGradebook; graded Scantron forms will not be returned to students.

Questions 1-10: Please mark the appropriate box on the front of the Scantron form (3 pts each).

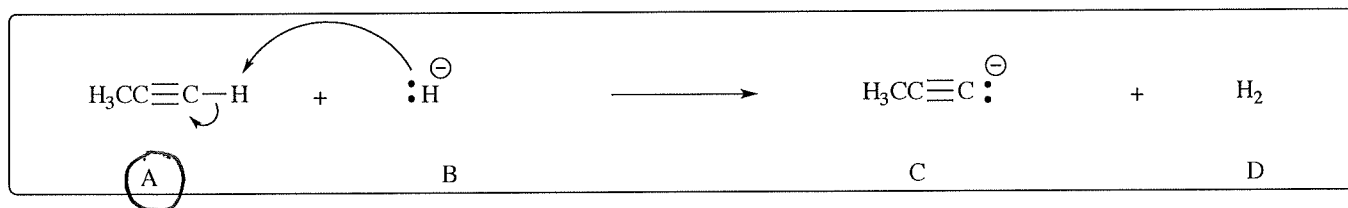
1. Which one of the following compounds is the **strongest base**?



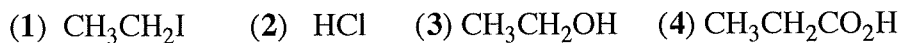
2. Which of the following is the **weakest acid**?



3. The acid/base reaction shown in the box proceeds in the direction as shown below. Which molecule in this reaction is the **strongest acid**?



4. Which of the following represents the order of increasing **acidity** for compounds the box?



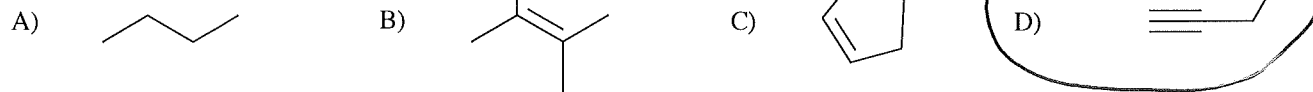
A) 1 (strongest) > 2 > 4 > 3 (weakest)

B) 2 (strongest) > 1 > 4 > 3 (weakest)

C) 2 (strongest) > 4 > 3 > 1 (weakest)

D) 4 (strongest) > 3 > 2 > 1 (weakest)

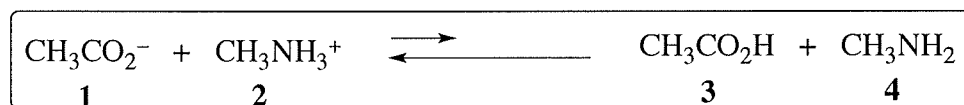
5. Which one of the following compounds has the most **acidic C-H bond**?



6. Which one of the following compounds is likely to react as **Lewis acid**?

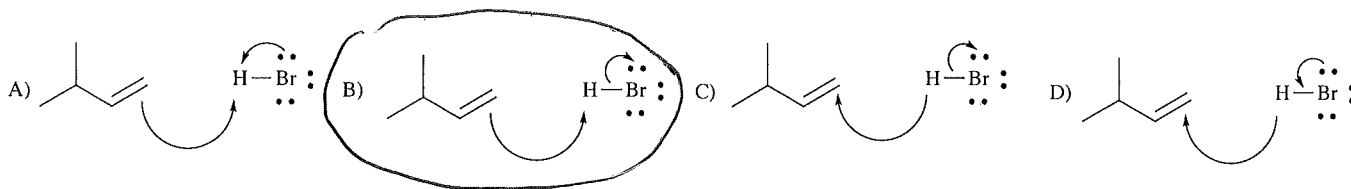


7. Which pair represents an **acid** and a **conjugate acid** for the reaction in the box?

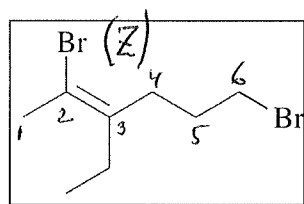


A) 1 and 4 B) 2 and 4 C) 1 and 3 D) 2 and 3

8. Which of the following drawings correctly depicts the **flow of electrons**?



9. What is the **IUPAC name** for the compound shown in the box?



A) (E)-2,6-dibromo-3-ethyl-2-hexene B) (Z)-2,6-dibromo-3-ethyl-2-hexene  
C) (E)-1,5-dibromo-4-ethyl-5-hexene D) (Z)-1,5-dibromo-4-ethyl-5-hexene

10. Which of the following compounds has **index of hydrogen deficiency = 4**?

